

[54] **NOTEBOOK COMPUTER WITH  
REVERSIBLE COVER FOR EXTERNAL USE  
OF MEMBRANE SWITCH SCREEN**

[76] Inventor: **Alan K. Lund**, 4165 Lafayette Pl.,  
Lee's Summit, Mo. 64063

[21] Appl. No.: 48,900

[22] Filed: Apr. 16, 1993

**Related U.S. Application Data**

[63] Continuation of Ser. No. 612,956, Nov. 12, 1990, abandoned, which is a continuation-in-part of Ser. No. 420,047, Oct. 11, 1989, abandoned.

[51] Int. Cl.<sup>5</sup> ..... G06F 13/00

[52] U.S. Cl. .... 395/155; 364/DIG. 2;  
364/234; 364/231.1; 364/231; 364/231.2;  
364/237.2; 364/927; 364/927.2; 364/927.64;  
364/928

[58] Field of Search ..... 364/DIG. 1 MS File,  
364/DIG. 2 MS File, ; 395/100, 115, 118, 144,  
145, 156, 155, 325, 500, 800; 340/710, 711, 712,  
713, 714, 715

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

4,571,456 2/1986 Paulsen et al. .... 179/2 C

4,730,364 3/1988 Tat-Kee ..... 16/337  
4,928,094 5/1920 Smith ..... 340/712  
4,990,901 2/1991 Beiswenger ..... 340/712

*Primary Examiner*—Robert B. Harrell

*Attorney, Agent, or Firm*—Litman, McMahon & Brown

[57] **ABSTRACT**

A notebook computer unit formed by a base housing and a hinged cover panel has a conventional keyboard mounted on the base housing, a flat panel display device mounted on the cover panel, and a transparent membrane switch array overlayed on the display. The unit includes a separable and reversible hinge mechanism and a separable and reversible electrical connector assembly which allow the cover panel to be detached, reversed, and re-attached to place the unit in one of two configurations. In one configuration, the display and tactile membrane switch array face outwardly with the cover panel overlying the base for operation of the unit by viewing the display and touching the membrane switch array to enter data and select options displayed. Alternatively, the cover panel may be oriented with the display generally facing the standard keyboard for use of the unit as a conventional notebook type computer.

20 Claims, 7 Drawing Sheets

